

```
#include <stdio.h>
```

```
int main() {
```

```
    int n, i, j, time = 0, qt;
```

```
    int bt[10], rt[10]; // bt = burst time, rt = remaining time
```

```
    int wt[10], tat[10]; // waiting time, turnaround time
```

```
    float avg_wt = 0, avg_tat = 0;
```

```
    printf("Enter total number of processes: ");
```

```
    scanf("%d", &n);
```

```
    printf("Enter burst time for each process:\n");
```

```
    for (i = 0; i < n; i++) {
```

```
        printf("P[%d]: ", i + 1);
```

```
        scanf("%d", &bt[i]);
```

```
        rt[i] = bt[i]; // Initially, remaining time is the burst time
```

```
    }
```

```
    printf("Enter time quantum: ");
```

```
    scanf("%d", &qt);
```

```
    int done;
```

```
    do {
```

```
        done = 1;
```

```
        for (i = 0; i < n; i++) {
```

```
            if (rt[i] > 0) {
```

```
                done = 0;
```

```
                if (rt[i] > qt) {
```

```

        time += qt;

        rt[i] -= qt;

    } else {

        time += rt[i];

        wt[i] = time - bt[i]; // Waiting time

        rt[i] = 0;

    }

}

}

} while (!done);


// Calculate Turnaround Time

for (i = 0; i < n; i++) {

    tat[i] = bt[i] + wt[i];

    avg_wt += wt[i];

    avg_tat += tat[i];

}


printf("\nProcess\tBurst Time\tWaiting Time\tTurnaround Time\n");

for (i = 0; i < n; i++) {

    printf("P[%d]\t%d\t%d\t%d\n", i + 1, bt[i], wt[i], tat[i]);

}


printf("\nAverage Waiting Time = %.2f", avg_wt / n);

printf("\nAverage Turnaround Time = %.2f\n", avg_tat / n);


return 0;

}

```

Enter total number of processes: 3

Enter burst time for each process:

P[1]: 5

P[2]: 7

P[3]: 4

Enter time quantum: 2

Process	Burst Time	Waiting Time	Turnaround Time
P[1]	5	8	13
P[2]	7	9	16
P[3]	4	8	12

Average Waiting Time = 8.33

Average Turnaround Time = 13.67

...Program finished with exit code 0

Press ENTER to exit console.